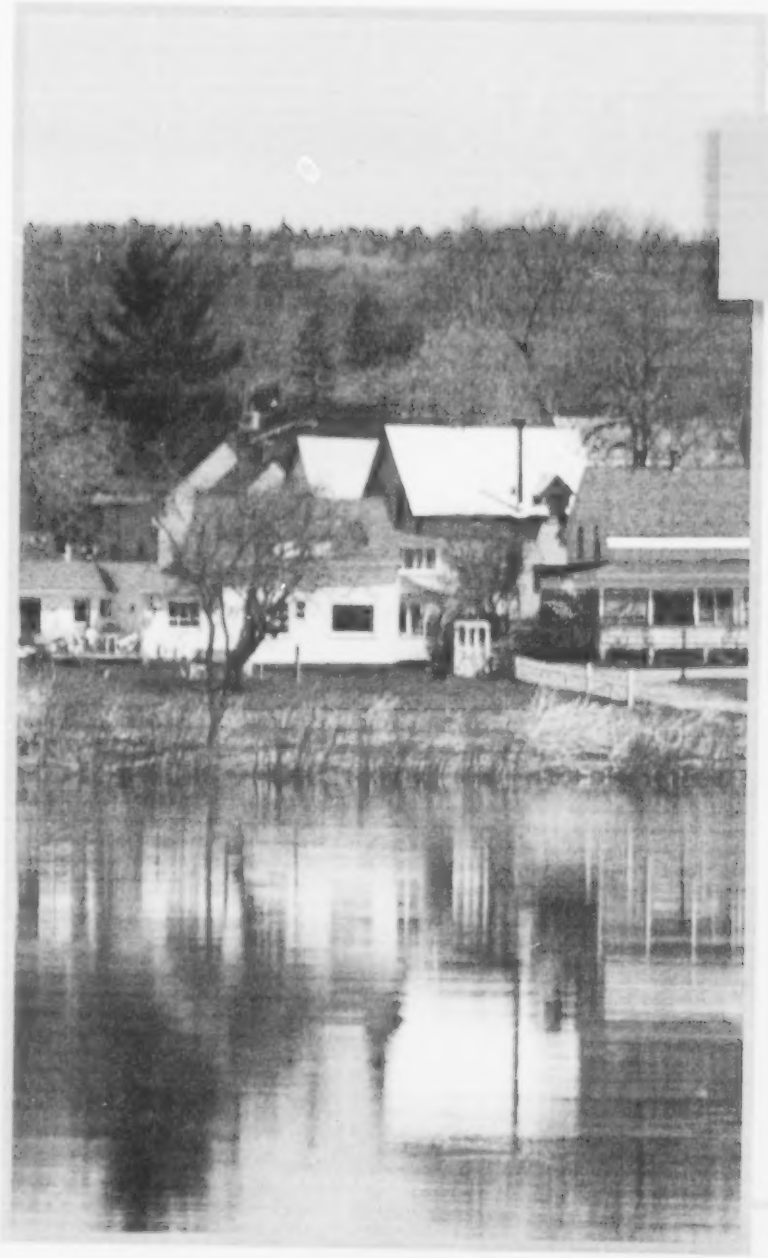

Atlantic Canada: The Have Provinces?

Health and Wellness & Crime and Safety

Prepared for the Atlantic Summer Institute
on Healthy and Safe Communities

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Indicators in ths report, as well as additional indicators on the Atlantic Provinces and Canada, can be seen on the Community Accounts webpage at

www.communityaccounts.ca.

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The views and opinions expressed in this paper are solely those of the author and do not necessarily reflect those of any organization that the author is associated with.

The indicators that have been chosen by the author are meant to be examples and are, therefore, not definitive. Their purpose is to promote discussion for future development.

MEMORIAL UNIVERSITY OF NEWFOUNDLAND — NEWFOUNDLAND AND LABRADOR STATISTICS AGENCY

Atlantic Canada: The Have Provinces?

Health and Wellness & Crime and Safety

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1 Introduction

In the recent bestseller, "*Freakonomics*", Steven Levitt states that observations and insights about our social and economic landscape can be based on five fundamental ideas. The fifth idea he postulates is: "knowing what to measure and how to measure it, makes a complicated world less so."[1]. Unfortunately, our view, and the view of many others, of the Atlantic Canada landscape is primarily seen through an economic lens. From this perspective Atlantic Canada is to be pitied. We have the lowest per capita incomes, the highest rates of unemployment, and the highest rates of out-migration amongst our youth.

The purpose of this Institute is to help create a healthier and safer Atlantic Canada. In order to accomplish this, the social and economic determinants of health and crime and community development need to be understood. In order to understand the determinants, and to help us to develop policy prescriptions we need to know what to measure and how to measure it. This paper is an attempt at an initial offering to start the process. We know that incomes are important or the lack of necessities is an important determinant of health and community safety. We know that unemployment causes stress, illness and violence. But the determinants of health model calls out for a much wider perspective. As Dennis Raphael stated, "…what continues to be a major failing of determinants of health theory and research is a neglect of the political, economic, and social forces that drive the quality of these health determinants."[2]

In this paper, it is proposed that that the key to understanding the community is an understanding of the **people** who live in that community and their relationship to one another. The approach is, therefore, a "bottom-up" approach and focuses, in the first instance, on the individual. This is fundamentally different from the "top-down" approach used in macro-economic analysis where the indicators are aggregates for the entire economy.

The second proposition is that what we want to achieve for these people is to maximize their "well-being". In order to do this, the complexity of **domains** that determine individual well-being need to be understood. (For example, health is a domain of well-being as is personal safety and security.) As well, how the world beyond our control can affect these domains must also be understood. Adverse economic shocks, such as the closure of a fishery can affect our health. Therefore, what is measured and how it is measured must be part of a larger causal model. These linkages must be able to be scientifically established and then the strength of the causal relationships quantitatively measured.

This discussion may seem somewhat abstract; be assured it is not. Indeed, it is the model that occurs when visiting a doctor. The initial interview often begins with the patient telling a story that provides the doctor with clues on what to measure. Scientists have informed and developed techniques that tell us how to measure and our models have tried, often imperfectly, to determine the causes of illness and establish certain procedures for a cure.

This paper is organized as follows:

- **Section 2** discusses the evolution of the "well-being" approach and the associated domains of well-being.
- **Section 3** is entitled the Determinants of Determinants and outlines those factors that might determine the determinants of health. Examples of models that incorporate such an approach would be the determinants of health (population health) model or the determinants of crime.
- **Section 4** outlines the System of Community Accounts in which **indicators** are organized by domain for the various

[1] *Levitt, Stephen D. and Stephen J. Dubner, Freakonomics, HarperCollins, New York, 2005.*

[2] *Raphael, Dennis, Social Determinants of Health: Present Status, Unanswered Questions, and Future Directions, A paper presented at the conference Dahlgren and Whitehead and Beyond: The Social Determinants of Health in Research, Policy and Service Delivery, April 21, 2005, Cardiff, Wales, UK.*

groups in our communities over time. This section will identify the indicators as well as identify domains beyond our immediate control.

- **Section 5** will attempt to deliver on the promise made to you in your program and perhaps the reason you are attending this session, that is, we will give a brief overview of some of the trends in these indicators for our Atlantic provinces.
- **Section 6** summarizes the contributions of the paper and points out the general challenges that lay ahead.

2 The Evolution of the Well-Being Approach

The promotion of individual and collective "well-being" is certainly not a new concept. It was incorporated into neo-classical economics as a way of attempting to explain the behaviour of individuals. In this context, well-being is linked in its origins to Bentham's utilitarianism in which individuals would seek to maximize their happiness. The concept goes further in the sense that ethically-based normative actions for the collective in a democratic state call for those which promote the "greatest happiness". Such a rule implies that private actions may have public consequences. Bentham's ideas were expanded upon by another liberal, John Stuart Mill, who argued in his 1863 book on "Utilitarianism" that happiness involves more than sensual pleasure. For Mill, utilitarianism also involved intellectual, spiritual and cultural pleasure and, therefore, was more than just the pursuit of maximizing material gain. In fact, Mills argued that these other sources of pleasure were more important determinants.

The concept of utility was incorporated into neoclassical economics in what is called "utility theory". According to this theory, the level of happiness or utility that an individual achieves is directly related to the level of consumption of goods and/or services. This restricted form of utilitarianism is not primarily an ethical principle but an assumption concerning human behaviour. In this form, individuals are maximizing self-interested egotists concerned with material well-being. An additional maintained hypothesis of utility theory is that as one consumes more of any given quantity of a good or service, the additional happiness one achieves diminishes but is never zero or negative. In the literature this assumption is called the "theory of diminishing marginal utility".

Welfare economics is the study into the conditions under which alternative resource actions under varying market conditions are in the "best" interests of society. The objective then is to maximize the well-being of society subject to resource and technological constraints. The older branch of welfare economics follows directly from utilitarian principles. By contrast, the new welfare economics is concerned with distributive issues as well as efficiency ones. Welfare economists often following a humanist approach have been concerned over those conditions in which private markets fail to act in the best interests of society.

For the brief discussion here, there are two primary issues that have dominated modern welfare economics and the study of subjective well-being. Firstly, how can one objectively measure subjective utility and then under what circumstances can one make inter-personal comparisons. While the topic seems far removed from any real world relevance, exactly the opposite is the case. For example, it dominates any discussion amongst economists who are interested in topics such as poverty.

Recently, advances in behavioural psychology have led some

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academics to re-examine the underlying behavioural assumptions of economics and what factors determine individual economic well-being. Spear-heading this investigation has been a Nobel Laureate in economics and a Princeton professor in Psychology, Daniel Kahneman.[3] Concurrently, calls for greater government accountability based on outcomes have also led to a re-examination of defining the collective well-being and how government intervention alters it. In short, attention is moving away from the narrower focus on resource budget dollars, employment inputs and GDP output measures to outcomes in health, literacy and social inclusion but ultimately measured by well-being.

The basic findings of this new research on well-being suggest that:

- Genetic predisposition and the interaction with our up-bringing and environment explains about 50% of the variation in people's happiness,
- Life circumsta ces include "factors such as income, material possessions, marital status as well as contextual circumstances such as neighbourhood, whether we have just moved jobs or home, … the weather." As people tend to adapt quickly, these factor have only a small influence on happiness estimated at 10%,
- Intentional activities including socializing, doing meaningful work, exercising, cognitive activities such as appreciating and savouring life explains about 40% of the variation in happiness.[4]

Therefore, according to these new research findings it is true that well-being cannot be attained without the basic material needs of people being met and, thus, income is an important attribute of well-being when it is the means to purchase basic necessities. Once basic needs are met, however, increases in income may have very little impact on well-being and, in some cases, may even have a detrimental impact.

In addition to economic factors, there are three types of attributes of well-being that matter according to advocacy groups such as the New Economy Foundation (NEF):

1. People's satisfaction with their lives including their own assessed pleasure and enjoyment in their lives;
2. Human capital attributes or people's personal development such as fulfilling potential, autonomy, purpose, personal growth and development, health and education;
3. People's social well-being including a sense of belonging, feeling of contributing, engaging in pro-social behaviour. "One of the most important factors which promote well-being is our personal relationships. … As is belonging to some kind of community or social group."[5]

Thus the new hedonic psychology is able to support John Stuart Mill's belief that utility/happiness was more than just sensual pleasure but current research is able to go much further. The research is able to identify the sources of the contributors to happiness and the extent to which these factors contribute.

Another aspect of utilitarianism that seems to be surprisingly robust is its notion of being about more than just egoism, since the "greatest happiness" principle is consistent with private actions promoting collective well-being. Evidence shows that happy people are more sociable, active, altruistic, generous, and tolerant. They have also been shown to be more economically productive, creative, healthy and long living. "Therefore, promoting individual well-being

[3] *See Daniel Kahneman, Ed Diener, and R. Schwarz (ed.), Well-Being: The Foundations of Hedonic Psychology New York: Russell Sage Foundation*

[4] *Isikken, C (1999) Happiness: the Nature and Nurture of Joy and Contentment; Schkade (2003) Pursuing Happiness: The Architecture of Sustainable Change (from NEF, A Well-Being Manifesto for a Flourishing Society)*

[5] *New Economics Foundation, A Well-being Manifesto for a Flourishing Society: The Power of Well-Being, 3, 2004.*

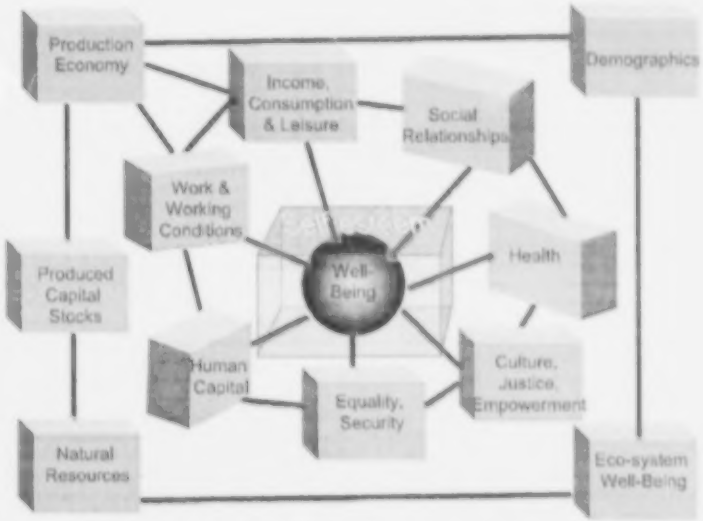
is not just an important end in itself, it also has useful consequences for a flourishing society in all sorts of other ways, including the enhancement of people's social well-being."[7]

According to the New Economic Foundation, "Not only does economic growth not bring happiness, but many of the things associated with growth can reduce our well-being. By focusing purely on economic indicators, we have missed the negative side effects of economic growth and efficiency. These might include the depletion of environmental resources, the stress from working long hours, and the unravelling of local economies and communities when the out-of-town supermarket settles nearby. … The economically efficient society is not necessarily a society which promotes high well-being."[8] This thinking is, in many ways, consistent with the new welfare economics discussed earlier, which states that equity is as an important an issue in determining collective well being as economic efficiency is.

Figure 1 below tries to incorporate, in a qualitative manner, those domains or attributes that can seemingly affect individual well-being and have been mentioned in the literature. The inclusion of each of the domains will be briefly explained starting with the cube labelled "Income, Consumption and Leisure" and then moving clockwise around the well-being "web". Before doing so it should be noted that well-being has a spatial aspect to it in so far as individuals live in communities that are contained in counties/provinces/countries.

The well-being framework begins by incorporating traditional utility theory into our well-being framework in so far as the **consumption** of goods and services directly affects well-being. In turn, how much we can consume is determined by the **income** available to us as well as the prices of the goods or services. In fact, it is slightly more complicated since we can **save** part of our income to be used at some time in the future. The savings we have at any point of time add to our **wealth**. Conceptually a balance sheet of personal assets and liabilities would be included in this domain and for most individuals, the single most valuable asset they possess would be their home. Moreover, while most of us think of income in terms of the money that we bring in, conceptually income would also include transfers in kind including the value of consumption of public services such as health or education.

Figure 1: The Domains of Well-Being



Economics, which is the study of resource allocations, stresses the need for trade-offs in the face of binding constraints and,

[7] *New Economics Foundation, A Well-Being Manifesto for a Flourishing Society: The Power of Well-Being, 3, 2004 from: Lyubomirsky, S., King, L., Diener, E. (2004) Is Happiness a Strength? (forthcoming)*

[8] *New Economics Foundation, A Well-being Manifesto for a Flourishing Society: The Power of Well-Being, 3, 2004.*

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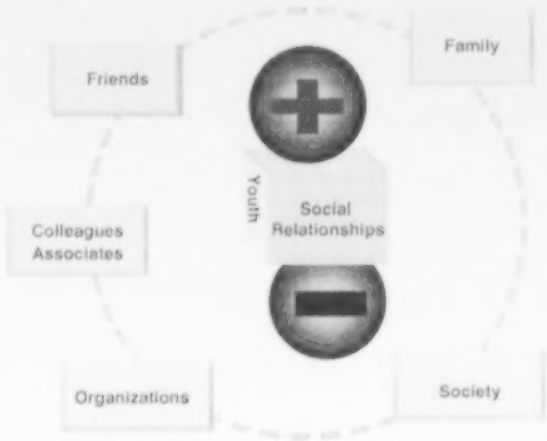
therefore, the more time we can devote to "work" the higher our incomes should be, as well as our level of consumption; but there is a trade-off in terms of the amount of "leisure" that is available to us. In the labour market literature, "**leisure**" is non-contractual time whereas it should be more appropriately sub-divided into committed time, necessary time and leisure. Committed time would involve the amount of time devoted to taking care of family or friends and devoted to volunteer organizations. Necessary time is personal time allocated to eating, sleeping and general personal maintenance. Leisure time is what is left over. The important insight into utility theory is that time has a well-being value associated with it.

Figure 2 tries to illustrate that there are various dimensions to each domain. Firstly, we can consider a time aspect to well-being and its components. The concept of sustainability as applied to well-being implies that future generations will be able to have its members sustain as least the same level of well-being on an individual basis. Economic growth implies that individuals should be able to attain higher standards of living or economic well-being.

Figure 2 has another dimension which relates to the various groups living in our society such as women, aboriginals or seniors. Groups may vary with respect to any domain. For example, households having single mothers as heads often experience relatively low income levels.

The next cube in **Figure 1** is entitled "**Social Relationships**". **Figure 3** tries to lay out the characteristics of the relationships that an individual might have. The concept of social capital both at the personal and the community would clearly fit into this domain as would the concept of trust. Relationships can either be positive or negative. A criminal occurrence would be an example of a negative incident that lowers the well-being of the victim but may raise it for the perpetrator. Note that any utilitarian principle would not apply to immoral acts. Volunteering are acts which are positive and raise the well-being of both the volunteer and the recipient.



The Circle of Social Capital

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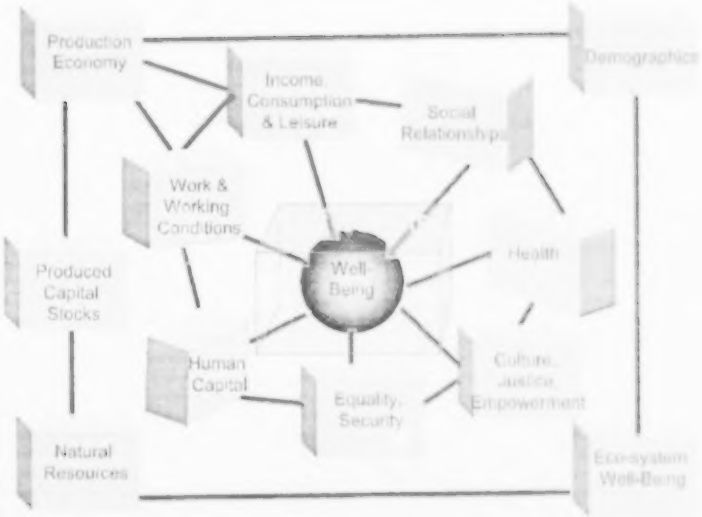

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[1] *New Economics Foundation. A Well-being Manifesto for a Flourishing Society. The Power of Well-Being. 3. 2004*

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Returning to **Figure 1**, the "bar" between the **Social Relationships** cube and the **Income, Consumption, and Leisure** cube implies a causal relationship between the domains. For example, if we have very high levels of income then we may choose friends who also have high levels of income and move in particular "social circles". On the other hand, an extreme loss of income can cause stress that may result in discord within a family. The relationship may go the other way. We may use our personal social capital to find a good well-paying job thus increasing our income. According to **Figure 1** all the domains of well-being are linked in what could be referred to as the "web-of-life".

Health is the next domain. It is probably useful to think of health from a life-cycle perspective. We would therefore consider life-expectancy and our functional health over our lifetime. But we also want to consider the various aspects of functional health at any point in time. Both life expectancy and functional health are partially determined by our genetic endowment which is an aspect of human capital. Our health is also partially determined by our behavioural patterns such as smoking or excessive drinking as well as the prevalence of disease. The health care system and industry are an integral part of the domain in that they provide services to improve our functional health and prolong life expectancy. Finally, there are the informal our own actions as well as those of family and friends to administer care directed to eliminating or reducing ill health caused by disease or other health disabling factors. Later on we shall modify the initial framework provided here when the **Production Economy** is introduced.

The next domain, **Culture, Justice and Empowerment** is a mixture of concepts with a common theme being that the values and culture of society that do not depend on any personal relationship can influence our well-being. Religious values would also fall into this domain, as would our stance on human rights. The political environment in which we live, and the extent to which that environment affords us the liberty to pursue our own well-being, runs throughout our lives. While certain domains may be primarily private this domain can define how we relate to society as a whole.

This is also true of the next domain, **Equality** and **Security**. Equality has to do with the distribution of resources, with the application of the law, and with the treatment by others as individuals and as members of institutions. Security is recognized in the economics literature as being a positive contributor to well-being. Most individuals are risk adverse and therefore prefer to avoid uncertainty. An aspect of insurance is that it protects us against the negative impacts of uncertain events. However, insurance cannot deal with all sorts of risks, and hence, uncertainty and risk are very important aspects of our lives.

The domain of **Human Capital** usually refers to the stock of education, skills and experiences (knowledge) that we have managed to accumulate over our lives, but we think that it also refers to those innate abilities that are part of our genetic endowment. Our ability to experience a range of emotions must somehow be figured into the stock of human capital as must our ability to be innovative. Many consider health to be part of human capital and the challenge is that many of those personal qualities or characteristics that determine well-being do not always fit nicely into one domain box.

Finally, **Work and Working Conditions** complete the well-being wheel or web. Work here is defined not only in the formal sense of employment but work is any provision of effort with the view to producing a good or service. It would include household production and housework. In this sense there is an overlap with the **Production Economy**.

If one is employed then the income would show up in the

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Income, Consumption and Leisure box. Private health care benefits would also be linked to that box and to the health cube. The boxes all relate to well-being but they also all relate to one another. Working conditions also form part of this box since work is such an important part of our lives. By working conditions we not only mean the physical working conditions but also our relationships with others in the workplace including the customers/clients/patients of the employer. For example, if customers engage in sexual discrimination then it lowers our well-being and the quality of our lives.

Having briefly discussed, in very general terms, the components of the web of well-being, there is another dimension very close to well-being and that is **Self-Esteem**. How do we regard ourselves in terms of our underlying value system? Self-esteem is intuitively dependent on the other domains of well-being. For example, if we believe that somehow physical appearance, say height, is an important value in our society and how we are seen by others then being short will have a negative affect on our own perception of oneself, and hence our self-esteem. We are being excluded because of our perception of how others value us. Self-esteem may be viewed as having a greater direct importance than other domains in determining well-being.

Having discussed the inner web/circle we turn our attention to the outer ring, those domains that indirectly affect our well-being. We will begin with **Demographics**, which not only determines our collective well-being but also determines those domains that directly affect our well-being, for instance, through culture or the potential for friends. In many rural parts of our region, smaller communities have rapidly falling populations as younger people leave and those few women who stay are having fewer children. "Burn out" will occur as the prime age survivors try to maintain community services such as the volunteer fire department while at the same time taking care of elderly parents, relatives, friends, and neighbours.

Our natural resources are divided into two categories, the **Ecosystem** which strictly relates to things living and other **Non-Renewable Natural Resources**, those which are non-living. The non-living might be further divided into environmental and others. With respect to our ecosystem, in some cultural contexts, where people are very close to the land, the well-being of the people is not separated from the well-being of the herds that provide food. In Atlantic Canada, the health of the ecosystem and the stocks of the natural resources are extremely important. For example with the collapse of the groundfish stocks, fish harvesters turned to the crab and shrimp fisheries. There is now a high probability that these stocks will collapse in certain areas within the next couple of years. A real challenge is to estimate the size of these stocks. Trying to predict future stocks is extremely difficult since stocks are subject to cycles and environmental conditions are changing. Added to that is our fishing effort that is normally mis-reported.

For the **Non-Renewable Natural Resources**, in the environmental area, we shall sub-divide the domain into water and air. These resources affect our well-being through our consumption of them both intended and unintended, that is through the air we breathe and the water we drink. The connection is two-way of course. The other stocks of natural resources can be divided into economic and non-economic. For example, there is a lot of natural gas off the coast of northern Labrador but it is non-economic at this time. This situation will probably change within the next 5 years.

So far we have discussed three types of capital stocks: social, human and natural and now we have the most traditional type, **Produced Capital**. This stock can be divided into many parts but the three main ones are plant, machinery and equipment, engineering capital and net working capital. Engineering capital would include roads and water and sewer but it would also include play grounds.

Produced capital when often combined with natural resources including land are used with other produced goods and services and labour services in the **Production Economy** to produce goods and services. Final goods and services destined for domestic use or transferred through government to individuals end up in the **Consumption** box. For most of the working-age population this consumption is financed out of incomes earned as a result of supplying labour services.

In the System of National Accounts production is sorted by what is produced. In other words, goods and services are sorted in sectors. One might consider the other dimension of who is the producer which is implied, but not explicit above. The main producers are businesses, government, non-domestic (out-of-province or out-of-community) producers, households and not-for-profit organizations. The last type of producer can form part of what is known as the "social economy".

For many readers this section may have seemed rather tedious, but it is important to begin to outline the framework, that is, those aspects of our lives that help to determine our well-being. Two points need to be kept in mind; firstly, the various domains are interconnected in a relationship/causal web, and secondly, we are not alone. Relationships with other living things and our environment affect our well-being over time.

3 The Determinants of Determinants

The well-being web has to do with causal linkages. This perspective is important since it forces us to consider: What does determine well-being? The answer as outlined in the previous section was such factors as health, safety and the absence of crime, and social development. We are led naturally to the next question: What determines population health or what determines the rate of crime? What determines the determinants? If we understand the answer to this question, we have the evidence that permits social action to improve the quality of our lives or our collective well-being.

In **Figure 4** below, we set out a model for the Determinants of Crime. Many familiar with the Population Health Model[9] [10] will see many of the same general factors. We have gone into each of the domains and indicated those aspects that more directly relate to various types of crime. For the sake of brevity, we will not explain the models in detail but inform the reader that in order to measure the relative importance of the determinants, indicators need to be selected for each of the determinants and for crime and then data gathered. The ideal data set, for phenomena such as these, are longitudinal panel data, that is, where individuals are tracked over a period of time. The National Longitudinal Survey on Children and Youth (NLSCY), the National Health Population Survey (NHPS), the Survey on Labour and Income Dynamics (SLID) and our NLSA Adult Health Survey

[9] *Such a model has been estimated for Newfoundland and Labrador and can be accessed through the Community Accounts (www.communityaccounts.ca) link to Additional Features link to Reference Materials link to Reference Documents link to Working Papers and select WP1. We have it well hidden but the effort is well-rewarded!*

[10] *One could also produce a "Determinants of Well-Being Model" and such a model does exist for Newfoundland and Labrador in the Well-Being Account of the Community Accounts.*

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(AHS) are examples of such longitudinal surveys.

Having gathered the data and estimated the parameters of a Determinants of Crime model along with trend data and analysis as well as comparisons with other jurisdictions, policymakers are able to set SMART (Specific, Measurable, Achievable, Relevant, and Timed) targets.

Figure 4 The Determinants of Crime

4 The Community Accounts: "Knowing What to Measure"

Our journey so far has identified that, while we are interested in "health and wellness and crime and safety"; ultimately, it is all about **well-being**. Initially, we focus on the individual, but ultimately it is how our own actions and programs and policies that affect collective well-being that is ethically important. Having selected well-being as our focus, we were able to identify general domains that either were an aspect of well-being or a characteristic of the individual that determined our capacity for well-being. It was stressed that these domains are linked in relationship/causal chains forming a web of well-being. Our framework was expanded to include our environment and natural resources as well as our economy since these domains could affect and are affected by the domains in our well-being framework. Finally, we explored very briefly how individual factors within the domains could be linked in logic chains to form determinant models of crime or population health but ultimately of well-being. For each factor or aspect of a domain of well-being an indicator must be selected that is capable of being measurable.

It is now self-evident that these indicators are related to the domains as part of an accounting system related to well-being. For each indicator, we would like to have data over time and in a spatial setting, starting with a neighbourhood or community and aggregating up. We also identified earlier in our domain boxes that we wanted to understand the well-being universes of particular groups in our society. The idea of a "system of accounts such as the System of National Accounts is extremely important since it forces us to understand the linkages amongst the domains and try for

internal consistency. If we simply go for a collection of indicators then our stories about the well-being of groups will not be internally consistent.

The idea of calling for a system of accounts centered on well-being is not unique. For example, according to NEF, governments should be measuring what matters to produce a set of national well-being accounts. In its *"A Well-Being Manifesto for a Flourishing Society" NEF* states "A set of national well-being accounts should be created which covers the main components of individual well-being – life satisfaction and personal development – as well as a range of components of well-being including engagement, meaningfulness, trust, and measures of ill-being such as stress and depression. The indicators should also include measures of well-being beyond the personal, what we call social and ecological well-being – in other words, how we feel about and how engaged we are with the society and environment in which we live. Well-being is not purely an individual phenomenon: It is rooted in our broader community."[11] In our country, the Atkinson Foundation's Romanow Institute is committed to producing indices for Canada and the provinces called the Canadian Index of Well-Being[12] or CIW. The European of Social Indicators is another effort centered on well-being measurement[13] that was initiated about three years ago. Other efforts are underway in Australia and New Zealand. A consensus is emerging that accounts centered on well-being are critical to a holistic, accountable and humanistic evidence-based approach to policy formulation and program evaluation. Modern technology is permitting us to carry forward the vision of Cambridge's Sir Richard Stone who, in 1973 developed *A System of Social and Demographic Statistics* (SDSS) for the United Nations but was never implemented. Ironically, a wider system of Accounts was also envisioned by Nobel Laureate Simon Kuznets who produced the first estimates of Gross National Product for the U.S. and presented them to Congress in 1934.

This new thinking about the importance of well-being has been an approach of the **Community Accounts** which began in 1996 but rapidly developed in 1998 in the Strategic Social Plan (SSP) of the Government of Newfoundland and Labrador. The SSP had a "vision" for the province which guided domain development. A similar vision for the Atlantic Provinces could be used to guide such a holistic approach. The SSP also called for an evidence-based decision-making approach to development in communities and regions of the province. The need to be able to look at causal factors across domains was essential to achieving this approach so the accounts focused on information that would help achieve the vision of the plan in an integrated and holistic manner.

A Vision for the Atlantic Provinces

Healthy, educated, prosperous and self-reliant people living in safe and supportive communities within sustainable regions while acknowledging our cultural diversity.

The current **Community Accounts** for Newfoundland and Labrador and its subsequent sister accounts for Nova Scotia, the **Community Counts**[14] have 10 domains with Well-Being at the top. While conceptually our approach is a "bottom-up" people approach access to the data is top-down starting at the province and then working down to the community or neighbourhood[15]. Within each Account one can "drill down" to get to topics and associated indicators on groups in society over time. Tutorials help to make the

[11] *New Economics Foundation, A Well-Being Manifesto for a Flourishing Society: The Power of Well-Being, 3, 2004.*
[12] *This project is in the conceptual stages but some data are being gathered.*
[13] *See www.gesis.org/en/social_monitoring/social_indicators/Data/EUSI/index.htm*
[14] *See www.gov.ns.ca/finance/communitycounts/default.asp*
[15] *See www.neighbourhoodaccounts.ca*

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site intuitive. Each account will have its own unique architecture and this is appropriately illustrated in the **Production Accounts**[16]. Links to other sites make international comparisons possible. The **Well-Being** Account, in addition to housing the **Quality-of-Life** indicators and the **Determinants of Well-Being** model already cited have what we refer to as **Well-Being Indicators** which are higher level headline indicators from the various domains.

For this report we have selected a partial set of well-being indicators for the four Atlantic Provinces, partially centered on the themes of this paper: health and wellness, crime and safety. The indicators are merely illustrative and an attempt to provide the catalyst to initiate the challenge of providing the Community Accounts for all of the Atlantic Provinces and thereby providing the beacon for the rest of Canada and beyond. These indicators are listed in **Appendix A** and provide the basis of discussion for **Section 5**. The new Atlantic Canada Community Accounts being launched here in this session will move fully to the framework outlined in this paper in **Figure 1**.

5 Health and Wellness, Crime and Safety: Currents (Trends) in Atlantic Canada Indicators

This section of the report provides a selection of indicators linked to well-being in all four Atlantic Provinces. A comparison to one another and to Canada as a whole is shown. Some of the indicators are also shown by age, gender or by families. Trends over time are also provided where appropriate and available.

The framework of the Community Accounts is used to present the data, therefore, they are presented in the following domains:

- Health
- Social Relationships
- Income
- Household Spending
- Labour Market
- Demographics.

Because of the Institute's focus on health and community safety, the first domain addresses health and wellness. The second addresses our social relationships, including crime and safety. In addition, some indicators in all the domains address risk factors related to health and crime and safety since other domains impact them.

WELL-BEING

Well-being is a very broad concept that is described earlier in this report as having many aspects in different domains that are linked to it. There are, however, direct measures of well-being. The Newfoundland and Labrador Statistics Agency has selected some measures of well-being that are not linked to the different domains. One of these is self-assessed quality of life, a survey question asked to Newfoundlanders and Labradorians on a regular basis. This is one of the main indicators of well-being but data on the quality of life is not collected in all provinces. For this report, therefore, the data is not available in all four Atlantic Provinces and Canada. Another indicator of well-being is self-esteem. Information is provided on this indicator in the Atlantic Provinces. More recent data on the other three Atlantic Provinces were not available.

[16] *See www.productionaccounts.ca*

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A lower proportion of Atlantic Canadians have high self-esteem *(Chart 1)*

In 1995, Canadians as a whole had higher self-esteem (48.6%) than Atlantic Canadians. Those with the lowest self-esteem are Newfoundlanders and Labradorians at 34.9%. More recent data shows that Newfoundland and Labrador's self-esteem levels have risen to 37.4% in 2000-2001.

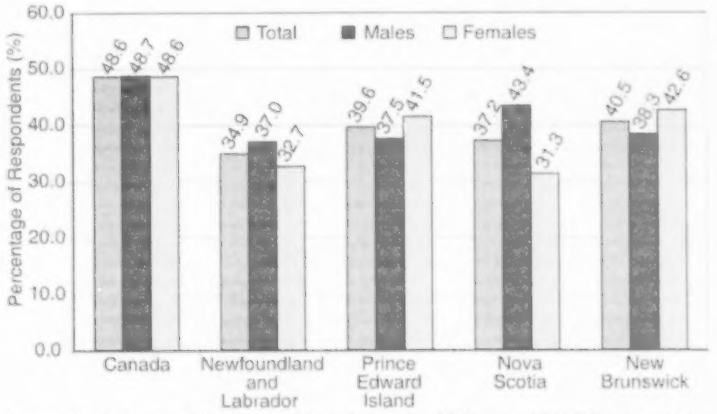
Although the self-esteem of men and women in 1995 was at the same level in Canada, a smaller proportion of women than men in Nova Scotia and Newfoundland and Labrador had high self-esteem. In New Brunswick and Prince Edward Island, the reverse was the case as a higher proportion of women than men had high self-esteem.

High Self-Esteem

by sex, household population aged 12 and over

Canada and Atlantic Provinces, 1994-1995

Chart 1



Source: Statistics Canada, National Population Health Survey, 1994/95, cross sectional sample, health file

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/1132.htm#CDIT01AN

HEALTH

How healthy are we in Atlantic Canada?

Atlantic Canadians who assessed their health as excellent or very good decreased since 1998 *(Chart 2)*

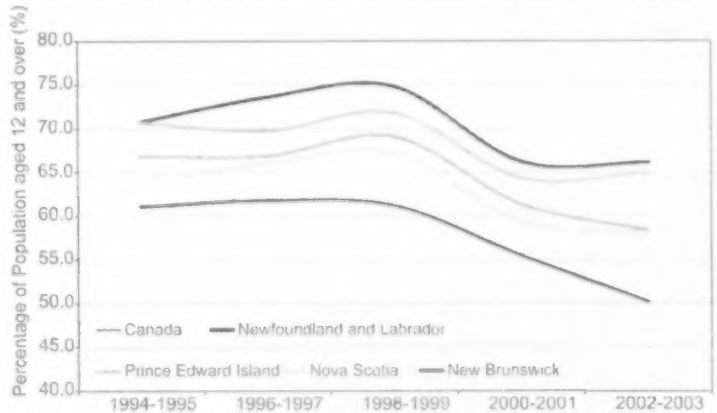
Those who assessed their health status as excellent or very good have been decreasing in the four Atlantic Provinces and in Canada since 1998-99. The largest decrease was in New Brunswick. Although the other three Atlantic Provinces also decreased, it was at a lower rate

Self-Assessed Health Status

Excellent/Very Good, household population aged 12 and over

Canada and Atlantic Provinces, 1994-2003

Chart 2



Source: Statistics Canada, National Population Health Survey, 1994/95, 1996/97, 1998/99, cross sectional sample, health file; National Longitudinal Survey of Children and Youth, (0 to 11 years of age), 1994/95.

www.statcan.ca/english/freepub/82-221-XIE/2004002/hlthstatus/wellbeing1.htm

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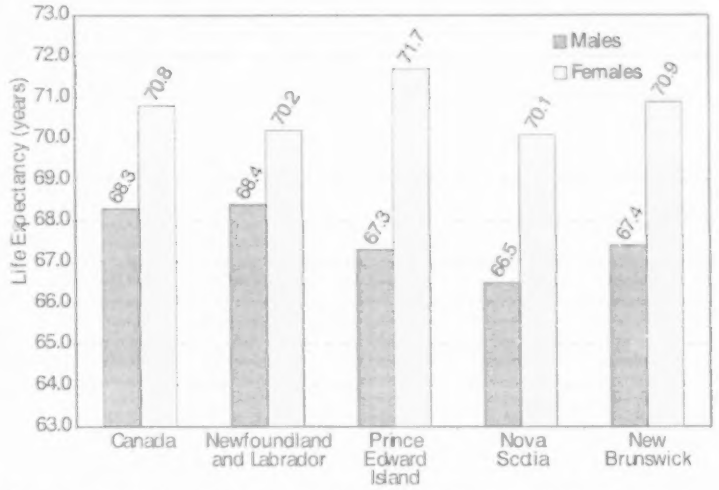

Source: Statistics Canada, Canadian Vital Statistics, Death Database; Canadian Community Health Survey, 2000/01; National Population Health Survey, 1996/97, cross sectional sample, Institutions component; and 2001 Census
www.statcan.ca/english/freepub/82-401-XIE/2002000/tables/html/dt008_en.htm

Health-Adjusted Life Expectancy
at birth, by sex
Canada and Atlantic Provinces, 2001
Chart 3

than Canada. However, Prince Edward Island's self-assessed health status as excellent or very good increased slightly between 2001 and 2003.

More people in NL and PEI think their health is excellent or very good *(Chart 2)*

In 2003, 66.1% of people in Newfoundland and Labrador and 64.9% of people in Prince Edward Island assessed their health as excellent or very good. Both were higher than Canada. The percent in Nova Scotia who assessed their health status as excellent or very good was similar to Canada, while those in New Brunswick assessed theirs at 8.2% below Canada as a whole.

Men in NS, NB and PEI live in full health less years than Canadian men *(Chart 3)*

Men in Prince Edward Island and New Brunswick live in full health approximately one year less than Canadian men. Men in Nova Scotia live in full health almost 2 years less than Canadian men. However, Newfoundland and Labrador men live in full health about the same number of years as Canadian men.

Women in Prince Edward Island live in full health longer than Canadian women, until 71.7 years of age on average. Women in Nova Scotia and Newfoundland and Labrador live in full health less years than Canadian women, until about 70 years of age. Women in New Brunswick live about the same years as Canadian women, at slightly less than 71 years of age.

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People with the highest incomes live in full health longer

Men and women in the highest incomes live in full health considerably longer than men and women with the lowest incomes. Men with the lowest incomes in New Brunswick and Newfoundland and Labrador live in full health 2.4 years less than their wealthier counterparts. In Prince Edward Island the difference is 4.3 years and in Nova Scotia it is 5.1 years.

Canadians live longer than Atlantic Canadians *(Chart 4)*

In 2002, all four of the Atlantic Provinces had life expectancy at birth somewhat lower than Canada (79.7 years). Newfoundland and Labrador had the lowest life expectancy at 78.3 years followed by the other three provinces that had life expectancies ranging from 78.8 to 79.3 years. Although life expectancy fluctuates year to year, between 1991 and 2002 there has been an increase in the country and in the Atlantic Provinces.

Functional health status decreased steadily between 1996 and 2003 *(Chart 5)*

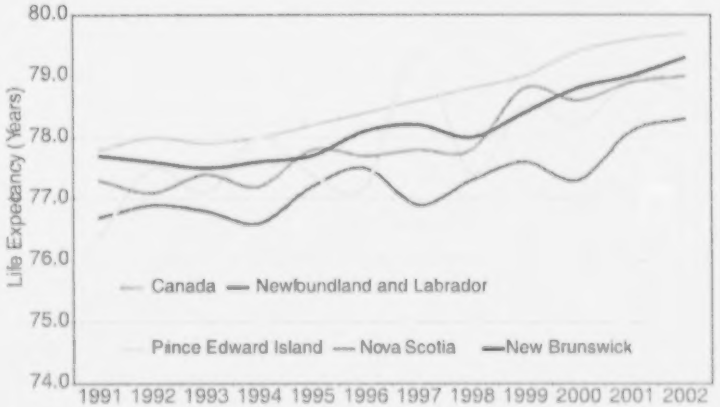
Functional Health Status, which is sometimes referred to as the Health Utility Index, is a rating of health based on an assessment of eight aspects of health (hearing, seeing, communicating, mobility, dexterity, pain, cognition and emotion).

Life Expectancy

at birth

Canada and Atlantic Provinces, 1991-2002

Chart 4



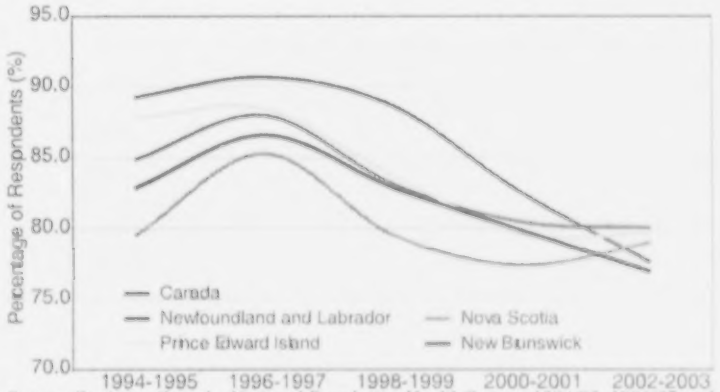
Source: Statistics Canada, CANSIM, Table 102-0511

Functional Health Status

very good or perfect household population aged 12 and over

Canada and Atlantic Provinces, 1994-2003

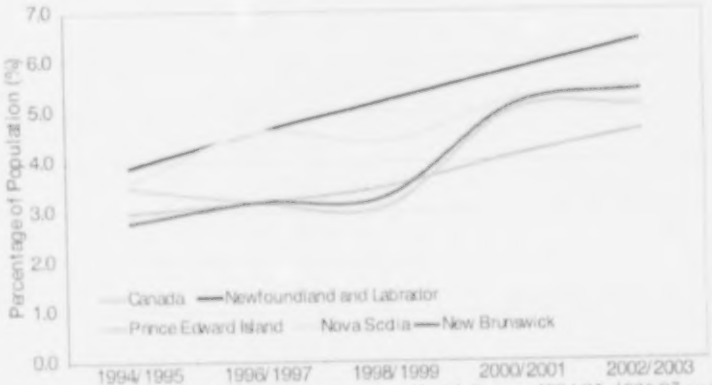
Chart 5



Source: Statistics Canada, National Population Health Survey, 1994-95, 1996-97 and 1998-99, cross sectional sample, health file, Canadian Community Health Survey, 2000-01, 2003

www.statcan.ca/english/freepub/82-221-XIE/00604/hlthstatus/function1.htm

Health and Wellness & Crime and Safety



Percentage of Population with Diabetes

household population aged 12 and over

Canada and Atlantic Provinces, 1994-2003

CHART 6

Source: Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file, Canadian Community Health Survey, 2000/01, 2003

www.statcan.ca/english/freepub/82-221-XIE/2004002/hlthstatus/conditions2.htm

With the exception of Nova Scotia, Very good or perfect Functional Health Status in Canada and the other three Atlantic Provinces steadily decreased between 1996-97 and 2002-03. In Newfoundland and Labrador, the decline was 13% followed by New Brunswick with a 9.6% drop and Prince Edward Island with a 8.8% reduction. Nova Scotia's Functional Health Status (6.3%) declined less than Canada (7.9%).

In 1996-97, Newfoundland and Labrador and Prince Edward Island had higher percentages of very good or perfect Functional Health Status than Canada in 1996-97. However, both provinces dropped to below the national Functional Health Status by 2002-03. Newfoundland and Labrador has decreased from having the highest very good or perfect Functional Health Status of the four provinces in 2000-01 to the second lowest in 2002-03.

What is our status on selected diseases?

Atlantic Canadians have different rates of some illnesses than in Canada as a whole. Diabetes and cardiovascular disease are more prominent in some Atlantic Provinces.

Rates of diabetes are higher in some Atlantic Provinces *(Chart 6)*

In 2002-03, the rates of diabetes in all four Atlantic Provinces were higher than Canada. Newfoundland and Labrador had the highest rate

at 6.4%. The rates in the other three provinces were similar ranging from 5.1% in Prince Edward Island to 5.5% in Nova Scotia.

Between 1994 and 2003, the rates of diabetes have increased substantially. In New Brunswick, the rate has almost doubled.

Heart disease in three Atlantic Provinces is a killer *(Chart 7)*

Heart disease deaths in Canada and all four Atlantic Provinces decreased between 1996 and 2001. The deaths from heart disease in Newfoundland and Labrador continued to be the highest of the four Atlantic Provinces (153.9 per 100,000) and are considerably higher than Canada (111.2 per 100,000). Nova Scotia rate of deaths from heart disease is the same as Canada and New Brunswick has a rate of death from heart disease was slightly lower than Canada in 2001.

The rate of deaths from heart disease in 2001 for men is significantly higher than for women in all Atlantic Provinces and in Canada. Newfoundland and Labrador and Prince Edward Island have rates for women higher than the Canadian rate.

How is our mental health?

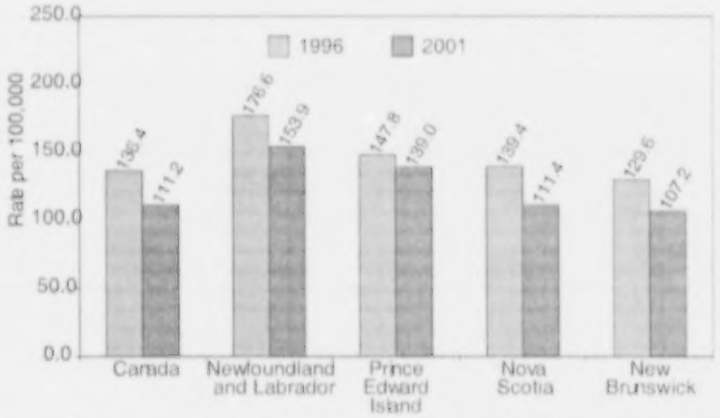
Research tells us that poor mental health affects other social aspects of our lives, possibly more than poor physical health. For example,

Ischaemic Heart Disease Deaths

rate per 100,000

Canada and Atlantic Provinces, 1996 and 2001

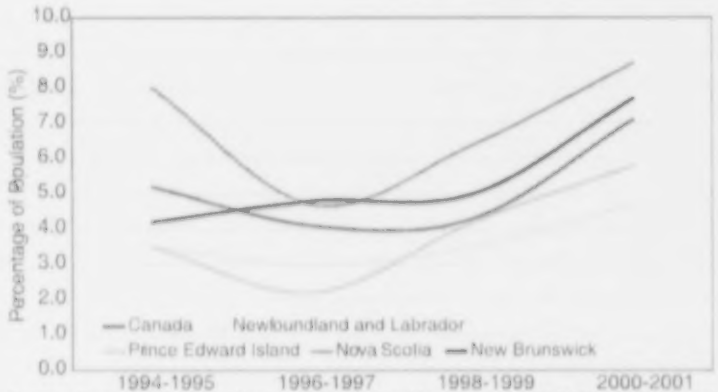
Chart 7



Source: Statistics Canada, Canadian Vital Statistics, Death Database, and Demography Division (population estimates)

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/1473_01.htm

Health and Wellness & Crime and Safety



Source: Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file, Canadian Community Health Survey, 2000/01

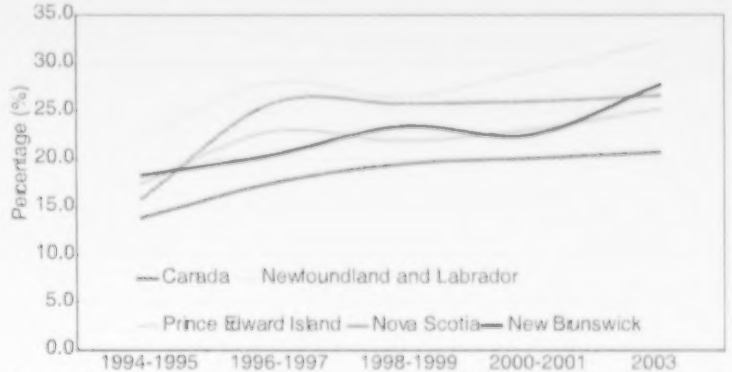
www.statcan.ca/english/freepub/82-221-XIE/2004002/hlthstatus/conditions2.htm

Percentage of Population with Probability of Depression

90% or greater, household population aged 12 and over

Canada and Atlantic Provinces, 1994-2001

Chart 8



Source: Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file, Canadian Community Health Survey, 2000/01, 2003

www.statcan.ca/english/freepub/82-221-XIE/00604/nonmed/behaviours2.htm#drink

Frequency of Drinking

in the past 12 months 5 or more drinks on one occasion, 12 or more times per year, household population aged 12 and over who are current drinkers

Canada and Atlantic Provinces, 1994-2003

Chart 9

mental health problems in parents has an impact on their ability to parent, and thus on their children. Since our objective in this paper is partly to draw some linkages between health and community safety, we have concentrated slightly more on this aspect of health.

More people in some Atlantic Provinces are at risk of becoming depressed *(Chart 8)*

In 2000-01, Nova Scotia (8.7%) and New Brunswick (7.7%) had a 90% probability of becoming depressed compared to Canada at 7.1%. Newfoundland and Labrador had the lowest percentage (4.7%) of the Atlantic Provinces followed by Prince Edward Island (5.8%).

Between 1994 and 2001, the percentage of the population with a 90% probability of becoming depressed increased in all Atlantic Provinces and in Canada. The greatest increase was in New Brunswick followed by Prince Edward Island.

More Atlantic Canadians are heavy drinkers *(Chart 9)*

In 2003, more of the population in the Atlantic Provinces were heavy drinkers than in Canada. The highest of the Atlantic Provinces was Newfoundland and Labrador where 32.2% reported heavy drinking. Many more men are heavy drinkers than women overall. In

Newfoundland and Labrador, 46.6% of men are heavy drinkers while only 16.8% of women are heavy drinkers. People who are heavy drinkers increased in the Atlantic Provinces and in Canada between 1994 and 2003. Nova Scotia and New Brunswick had the greatest increases.

Fewer Atlantic Canadians commit suicide *(Chart 10)*

With the exception of New Brunswick, whose suicide rate is 13.2 per 100,000, suicide rates are lower than Canada in the other three Atlantic Provinces. Newfoundland and Labrador had the lowest rate at 6.7 per 100,000, followed by Nova Scotia at 9 and then Prince Edward Island at 10.

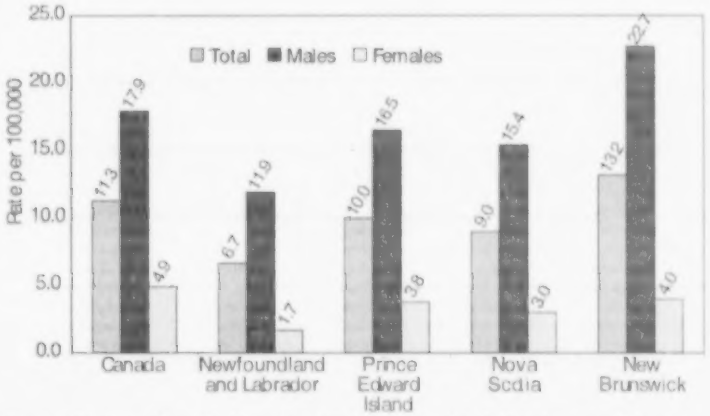
Men, however, have much higher rates of suicide than women in all provinces and Canada, particularly in Newfoundland and Labrador where the suicide rate for males is 7 times higher than for females, and in Nova Scotia and New Brunswick where it is more than 5 times higher.

Suicide, Age Standardized Rate per 100,000 Population

by sex, three-year average

Canada and Atlantic Provinces, 2001

Chart 10



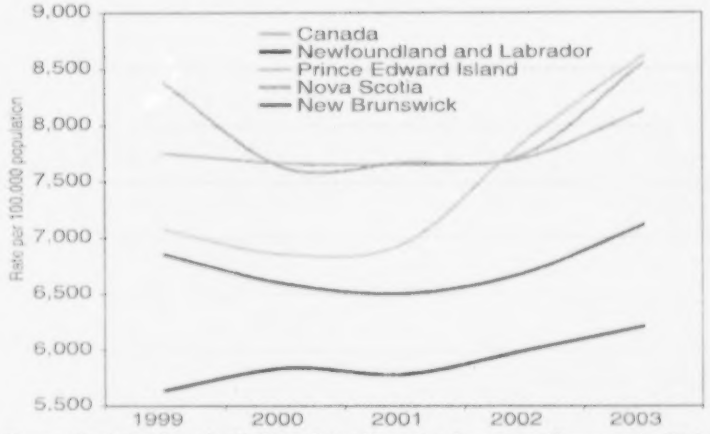
Source: Statistics Canada, Canadian Vital Statistics, Death Database, and Demography Division (population estimates)

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/14193_01.htm

SOCIAL RELATIONSHIPS

Positive social relationships are essential to our well-being. We need support from others, a sense that we are productive and respected members of the community or neighbourhood we live in. Our well-being is also increased if we live in safe communities where we are free of fear. Positive social relationships are a key aspect of crime prevention and community safety.

Health and Wellness & Crime and Safety



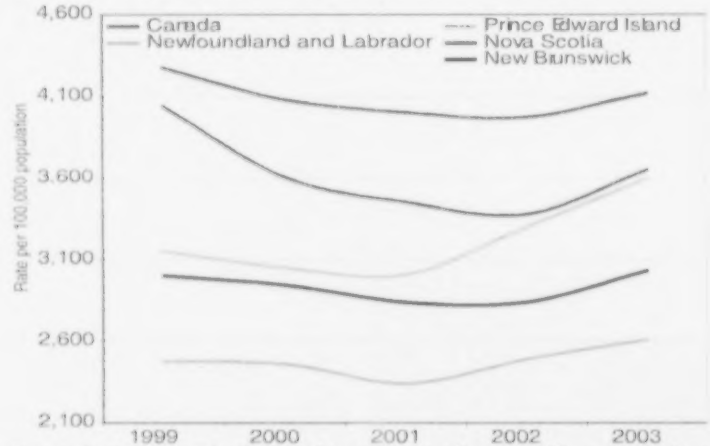
Source: Statistics Canada, Uniform Crime Reporting Survey, and Demography Division (population estimates)

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/22141.htm

Criminal Code Offences

Canada and Atlantic Provinces, 1999-2003

Chart 11



Source: Statistics Canada, Uniform Crime Reporting Survey, and Demography Division (population estimates)

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/22141.htm

Incidence of Property Crimes

Canada and Atlantic Provinces, 1999-2003

Chart 12

Are we living in safe communities?

The rate of crime has been increasing in the Atlantic Provinces *(Chart 11)*

Since 1999, the rate of criminal code offences has increased in all four Atlantic Provinces and in Canada. Compared to the rest of the provinces, Prince Edward Island had a much greater increase in the rate of criminal code offences between 2001 and 2003.

Newfoundland and Labrador had the lowest rate of criminal code offences per 100,000 in the Atlantic Provinces followed by New Brunswick. Both are significantly lower than the rate in Canada. Both Prince Edward Island and Nova Scotia have the highest rates of criminal code offences in the Atlantic Provinces, slightly higher than the rates in Canada.

Property crimes have been stable with the exception of PEI *(Chart 12)*

With the exception of Prince Edward Island where property crime has increased substantially, the rate of property crimes has remained somewhat stable between 1999 and 2003 and in some cases has decreased. There was an increase between 2002 and 2003 in all provinces and Canada.

Atlantic Canada: The Have Provinces?

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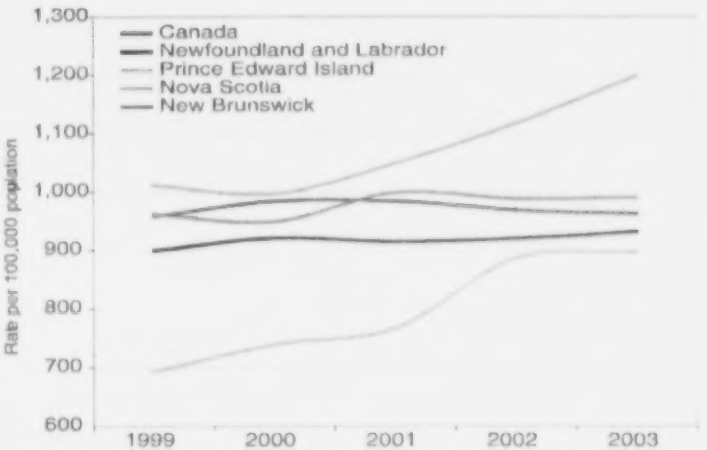
Violent crimes have been increasing in NS and PEI *(Chart 13)*

Violent crimes have remained stable in Newfoundland and Labrador and in New Brunswick as well as Canada between 1999 and 2003. Nova Scotia and Prince Edward Island, however, have seen an increase in violent crimes. Prince Edward Island continues to have the lowest rate of violent crime but has experienced a 29.4% increase in the rate per 100,000 over these years.

Incidence of Violent Crimes

Canada and Atlantic Provinces, 1999-2003

Chart 13



Source: Statistics Canada, Uniform Crime Reporting Survey, and Demography Division (population estimates)

www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/22141.htm

Children in NL are least likely to have friends frequently in trouble *(Chart 14)*

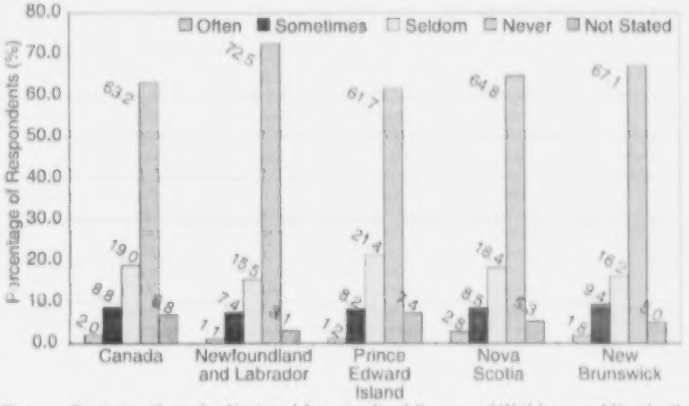
Newfoundland and Labrador had the highest percentage of children who do not have friends who are frequently in trouble. Children in Prince Edward Island who indicate they do not have friends frequently in trouble is the lowest in the four Atlantic Provinces.

Nova Scotia (11.4%) and New Brunswick (11.2%) have the highest rate of often and sometimes having friends frequently in trouble.

Percentage of Friends of Child Frequently in Trouble

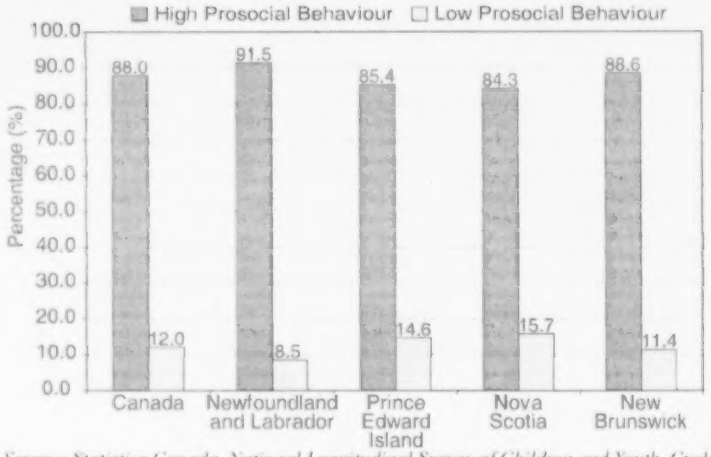
Canada and Atlantic Provinces, 1998-1999

Chart 14



Source: Statistics Canada, National Longitudinal Survey of Children and Youth, Cycle 3, 1998-1999

Health and Wellness & Crime and Safety



Source: Statistics Canada, National Longitudinal Survey of Children and Youth, Cycle 4, 2000

Prosocial Behaviour

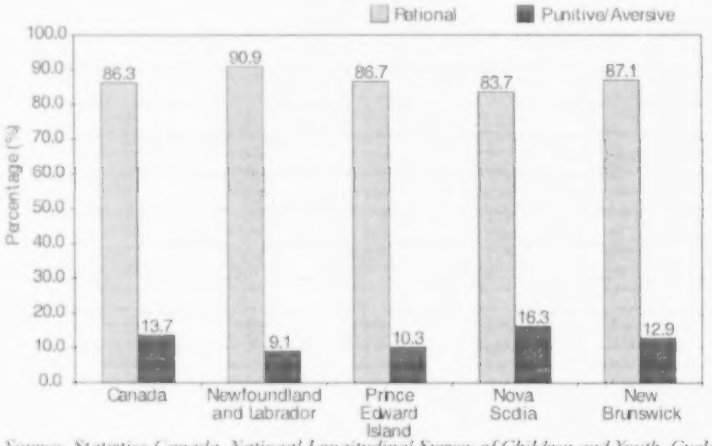
population aged 10-15

Canada and Atlantic Provinces, 2000

Chart 15

NL and NB have the lowest percentages of children displaying anti-social behaviour *(Chart 15)*

Newfoundland and Labrador has the lowest percentage of children ages 10 to 15 displaying anti-social behaviour at 8.5%. In New Brunswick (11.4%), the percentage is similar to Canada (12.0%). Nova Scotia and Prince Edward Island have a higher percentage of children displaying anti-social behaviour than Canada.



Source: Statistics Canada, National Longitudinal Survey of Children and Youth, Cycle 4, 2000

Percentage of Parents with Children Aged 2-11 Showing a Rational Parenting Style

Canada and Atlantic Provinces, 2000

Chart 16

Do our children live in supportive environments?

Rational parenting styles are more prominent in NL, PEI and NB than in Canada *(Chart 16)*

In three of the Atlantic Provinces, the percentage of parents of 2 to 11 year olds with punitive or aversive parenting styles, versus a rational parenting style, is lower than in Canada at 13.7%. Nova Scotia is the exception with 16.3% of parents using a punitive or aversive style.

Atlantic Canada: The Have Provinces?

Health and Wellness & Crime and Safety

All provinces are similar to Canada in the percentage of children living in lone parent families *(Chart 17)*

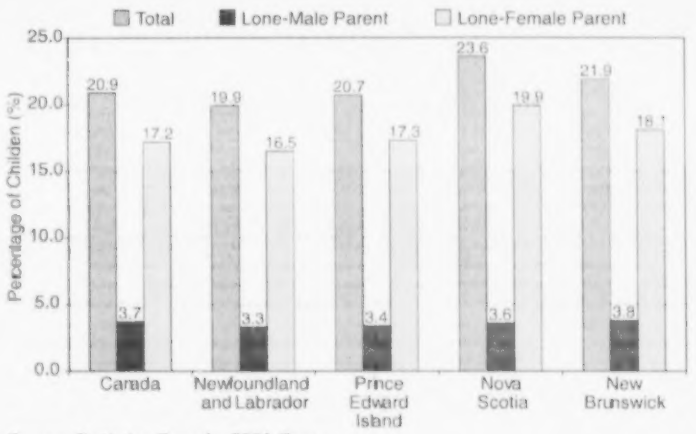
Children living in lone parent families ranges from a low of 19.9% in Newfoundland and Labrador to a high of 23.6% in Nova Scotia. Most lone parents are female with New Brunswick having the highest proportion of children living with male lone parents at 3.8%.

Percentage of Children Living in Lone-Parent Families

by sex

Canada and Atlantic Provinces, 2001

Chart 17



Source: Statistics Canada, 2001 Census

Atlantic Canadians have high levels of social support *(Chart 18)*

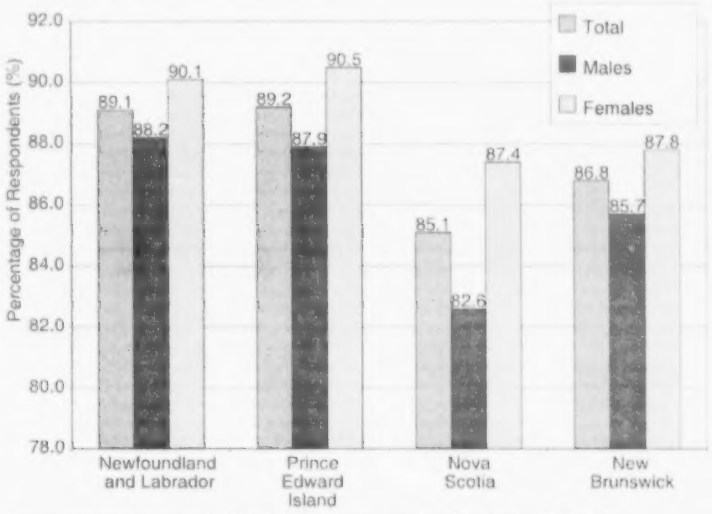
The majority of people in the Atlantic Provinces feel they have high levels of social support. More than 89% of Newfoundlanders and Labradorians and Prince Edward Islanders feel they have high levels of social support. The rates in Nova Scotia and New Brunswick are slightly lower. Women are more likely to feel they have high levels of social support than men in all four provinces.

High Social Support

by sex

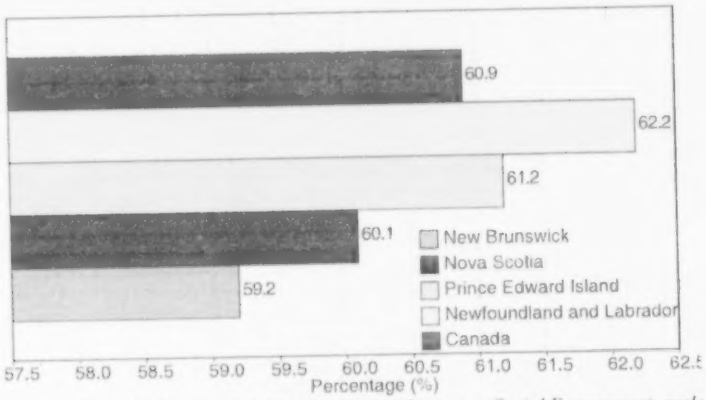
Atlantic Provinces, 2000-2001

Chart 18



Source: Statistics Canada, Canadian Community Health Survey, 2000/01
www.statcan.ca/english/freepub/82-221-XIE/2004002/tables/html/2326.htm

Health and Wellness & Crime and Safety

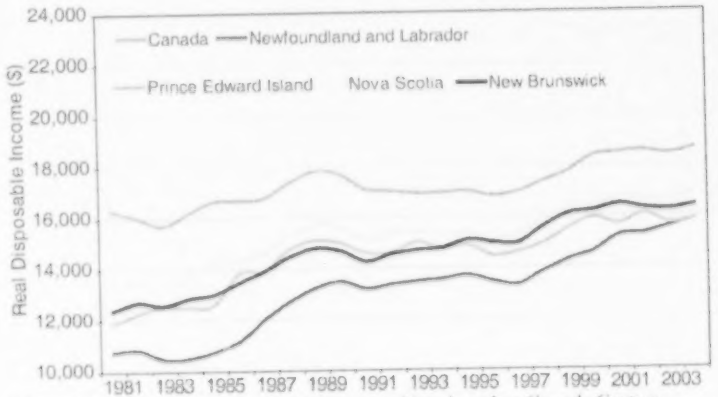


Source: Statistics Canada, 2003 General Social Survey on Social Engagement, cycle 17: an overview of findings, Catalogue no. 89-598-XIE
www.statcan.ca/english/freepub/89-598-XIE/2003001/pdf/89-598-XIE2003001.pdf

Percentage of Individuals who are Involved in at Least One Organization

Canada and Atlantic Provinces, 2003

Chart 19



Source: Compiled by the Community Accounts Unit, based on Canada Customs and Revenue Agency summary information as provided by Small Area and Administrative Data Division, Statistics Canada.
www.communityaccounts.ca/CommunityAccounts/OnlineData/table_i1.asp?comval=prov&menucomval=prov

Real Disposable Income (1992 $)

Canada and Atlantic Provinces, 1981-2004

Chart 20

Atlantic Canadians are involved in their communities *(Chart 19)*

In 2003, between 59% and 62% of Atlantic Canadians were involved with at least one voluntary organization. All Atlantic Provinces were similar to Canada at 60.9%. Newfoundland and Labrador has the highest involvement at 62.2% and New Brunswick has the lowest at 59.2%.

INCOME

Are incomes of Atlantic Canadians low?

Like education, income is an important indicator of well-being. However, its impact on well-being is reduced significantly once a level of income has been obtained that allows a person or family to meet their basic needs. It is poverty, therefore, that puts people at risk of reduced well-being and has the greatest impacts on other social aspects of well-being. In addition, research has shown us that income inequalities also have an impact on our well-being.

Real disposable income is increasing in Atlantic Canada *(Chart 20)*

Real disposable income increased in all four Atlantic Provinces between 1981 and 2004. Newfoundland and Labrador has the highest increase at 47.1%. The increase in Prince Edward Island and New Brunswick is similar at 33.3%

and 32.1% respectively, while Nova Scotia's increase is 27.0%. All four Atlantic Provinces are catching up to Canada which had a 14.1% increase during the same period.

Income inequality increased during the 1990s *(Chart 21)*

The Gini-coefficient is a measure of inequality such that zero (0) is total equality and one (1) is total inequality. Overall, the four Atlantic Provinces and Canada have similar levels of equality. Inequality increased between 1990 and 1999 in Canada by 6.5% and in Newfoundland and Labrador by 8.7%.

How many people live in poverty?

While poverty is certainly an indicator of well-being, income levels on which we measure poverty do not always show the full picture. Basic needs can be met in other ways such as home production, barter systems and under the ground economy, particularly in areas of high EI use where people hide income generated that would penalize their benefits. Nevertheless, the incidence combined with the depth of poverty are good initial measures of well-being.

Family poverty was highest in NL *(Chart 22)*

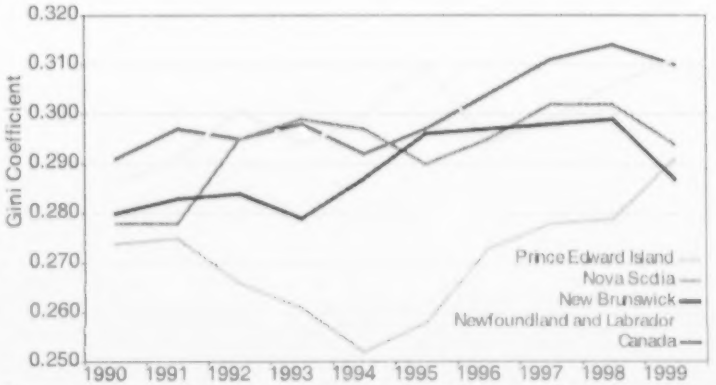
Based on the 2000 Market Basket Measure, significantly more lone parent families lived in poverty than two parent families. Newfoundland

Measures of Income Inequality: Gini Coefficient (After-Tax Income)

for economic families

Canada and Atlantic Provinces, 1990-1999

Chart 21



Source: Compiled by Community Accounts based on information obtained from Income in Canada, Catalogue no. 75-202, Statistics Canada

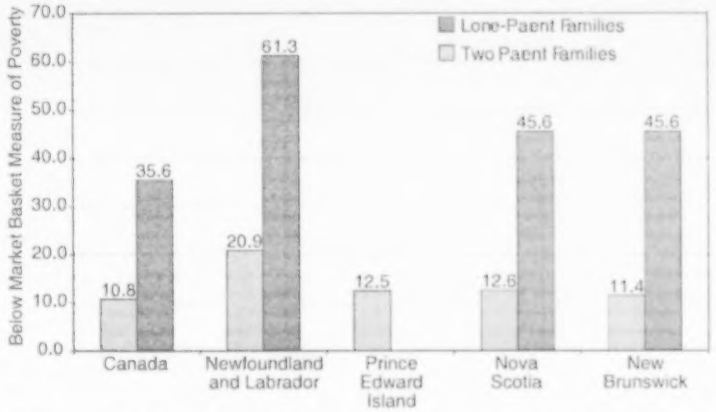
www.communityaccounts.ca/CommunityAccounts/OnlineData/ginidef.asp

Incidence of Low Income

families with children, below Market Basket Measure (MBM) of poverty

Canada and Atlantic Provinces, 2000

Chart 22



Source: HRSDC, Understanding the 2000 Low Income Statistics Based on the Market Basket Measure, May 2003

www.hrsdc.gc.ca/en/cs/sp/sdc/pkrf/publications/research/2003-000151/page03.shtml

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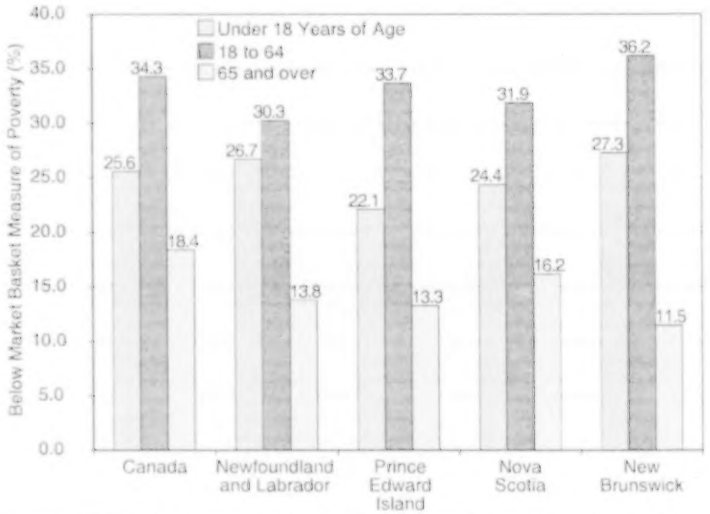


Source: HRSDC, Understanding the 2000 Low Income Statistics Based on the Market Basket Measure, May 2003
www.hrsdc.gc.ca/en/cs/sp/sdc/pkrf/publications/research/2003-000151/page03.shtml

Depth of Low Income

by age group, below Market Basket Measure (MBM) of poverty,

Canada and Atlantic Provinces, 2000

Chart 23

and Labrador had the most families living in poverty with 20.9% of two parent families and 61.3% of lone parent families living in poverty. Poverty in Nova Scotia and New Brunswick was closer to the Canadian average for two parent families but was higher than Canada for lone parent families. There was no data for lone parent families in Prince Edward Island.

Not surprisingly, there were a large proportion of children living in poverty in all four provinces and in Canada. The highest proportion of children living in poverty was in Newfoundland and Labrador (31.6%), almost double the proportion in Canada (16.9%). In the other three Atlantic Provinces, children in poverty ranged from a high of 20.4% in Nova Scotia to a low of 17.1% in New Brunswick.

The depth of poverty is not as great as the incidence of poverty *(Chart 23)*

The incidence of poverty does not tell the entire story. The market basket measure of the depth of poverty allows us to understand the seriousness of the problem. With the exception of New Brunswick, where the depth of poverty was slightly higher than Canada, the other three Atlantic Provinces were slightly lower than Canada.

While the incidence of poverty for lone parent families was significantly higher than two parent families, the depth of low income was

Health and Wellness & Crime and Safety

similar for lone parent families in the Atlantic Provinces and in Canada. Although there were slight differences, the depth of child poverty in all four Atlantic Provinces hovered around the Canadian average.

HOUSEHOLD SPENDING

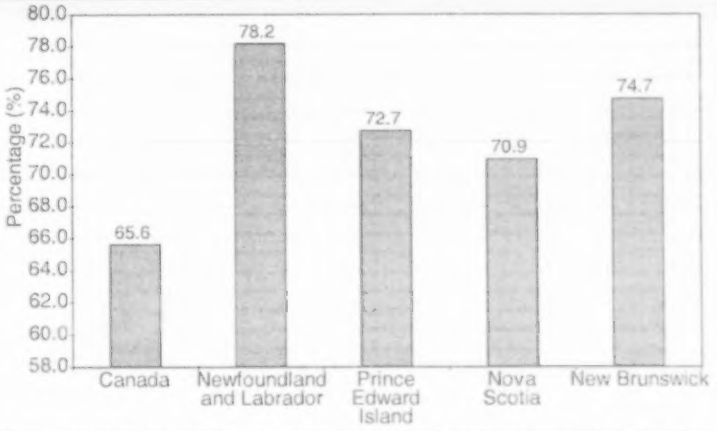
Home ownership is an economic and social indicator. It gives us an idea of the amount of income we are spending or not spending on shelter. Presumably, the more home ownership, the less burden is placed on people to pay for shelter, thus the impact of poverty is reduced. In addition home ownership tells us about stability of the family, one of the indicators that could signify well-being, and particularly community safety, where sense of belonging decreases the likelihood of become an offender.

Atlantic Canadians are more apt to own their own homes *(Chart 24a, 24b)*

Homes owned versus rented in Atlantic Canada was higher in all four provinces in 2001 than in Canada. Newfoundland and Labrador had the highest rate of homes owned versus rented with 78.2% of the total dwellings owned while Nova Scotia had the lowest at 70.9% compared to Canada at 65.6%.

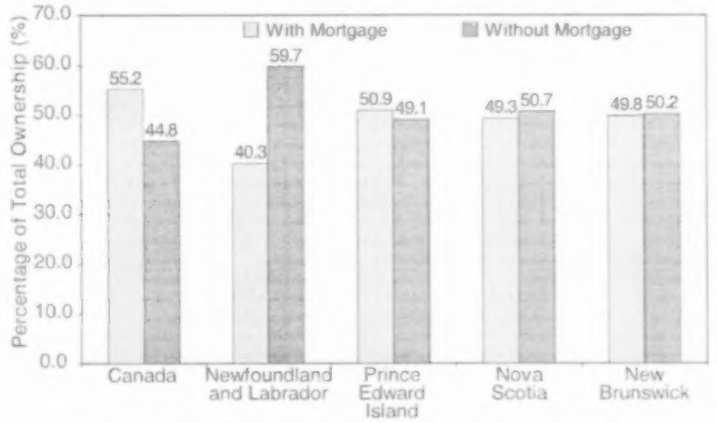
Home owners in the four Atlantic Provinces were mortgage free more often than people in Canada. Newfoundland and Labrador had the highest rate of home ownership without a

Homes Owned Versus Rented
as a percentage of total dwellings
Canada and Atlantic Provinces, 2001
Chart 24a



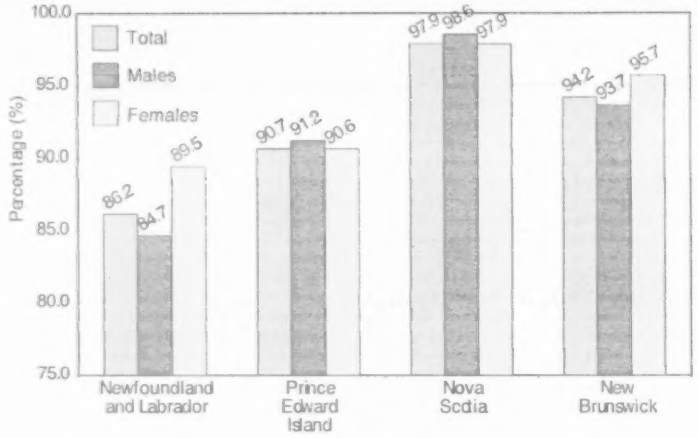
Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.
www.communityaccounts.ca/CommunityAccounts/OnlineData/table_c2.asp?comval=prov&menucomval=prov

Home Ownership, With and Without Mortgage
Canada and Atlantic Provinces, 2001
Chart 24b



Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.
www.communityaccounts.ca/CommunityAccounts/OnlineData/table_c2.asp?comval=prov&menucomval=prov

Health and Wellness & Crime and Safety

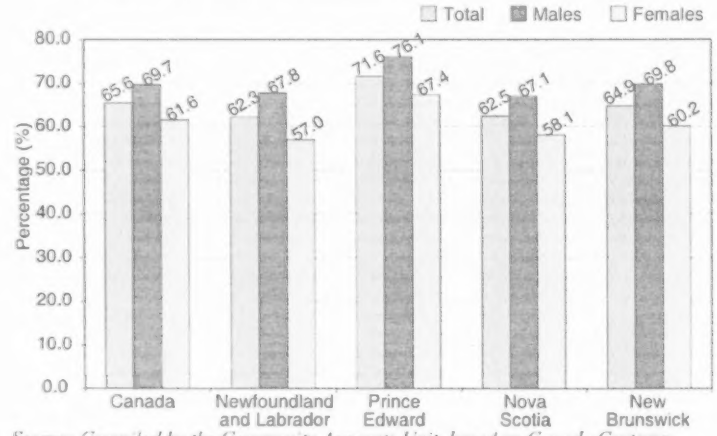


Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.

Average Hours Worked per Year Relative to Canada

Atlantic Provinces, 2001

Chart 25



Source: Compiled by the Community Accounts Unit, based on Canada Customs and Revenue Agency summary information as provided by Small Area and Administrative Data Division, Statistics Canada

Worker to Population Ratio

Canada and Atlantic Provinces, 2003

Chart 26

mortgage at 59.7% with the lowest being Prince Edward Island at 49.1%.

LABOUR MARKET

Atlantic Canadians work less hours per year than Canadians *(Chart 25)*

Atlantic Canadians work less hours per year than Canadians, primarily because of seasonal employment. Newfoundlanders and Labradorians and Prince Edward Islanders work the least at 86.2% and 90.7% of the national hours worked per year respectively.

The average weeks worked annually for all Atlantic Provinces, however, is lower than in Canada (45.6 weeks). This ranged from a low of 38.5 weeks in Newfoundland and Labrador to a high of 44.2 weeks in Nova Scotia.

Atlantic Canadians work more hours per week when working

When Atlantic Canadians are working, they work more hours per week (low of 39.1 in Nova Scotia to high of 40.2 hours in Prince Edward Island) than Canadians (38.7 hours).

Three Atlantic Provinces have worker to population ratios lower than Canada *(Chart 26)*

Prince Edward Island has a worker to population ratio higher than Canada, whereas

the ratio is lower in the other three Atlantic Provinces. Newfoundland and Labrador has the lowest worker to population ratio at 62.3%.

How many Atlantic Canadian youth are idle?

Not only are unemployed youth often poor and not productive members of their community economies, but research and our experience has told us that idleness often leads to delinquent behaviours such as drinking, drugs and potentially crime.

More youth in NL are not working or in school *(Chart 27)*

Newfoundland and Labrador has the highest percentage of youth ages 15 to 24 who are not working and are not attending school at 19.6%. The percentages of the youth ages 15 to 24 in the other three provinces are slightly higher than Canada at 11.0%.

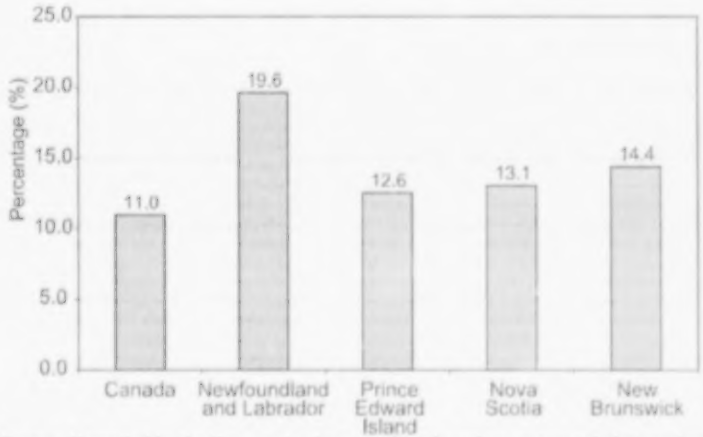
EDUCATION

Research has shown that high levels of education lead to higher levels of well-being. This has partly an economic basis as higher employment levels and higher incomes are associated with high levels of education. High levels of education, however, are also linked to better health and to lower crime rates.

Percentage of Population Aged 15-24 Not Working or Attending School

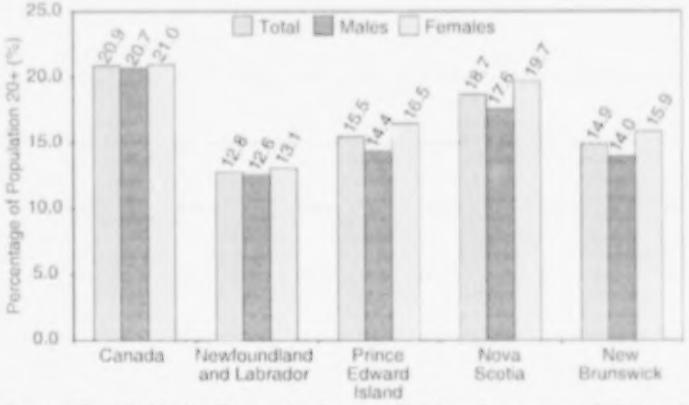
Canada and Atlantic Provinces, 2001

Chart 27



Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.

Health and Wellness & Crime and Safety



Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.

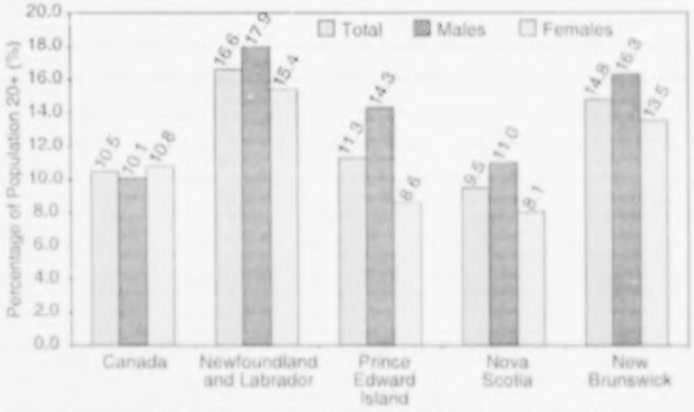
www.communityaccounts.ca/CommunityAccounts/OnlineData/table_e11r.asp?comval=prov&menucomval=prov&agecohort=20plus

Percentage of Population Aged 25-54 with Bachelor's Degree or Higher

by sex

Canada and Atlantic Provinces, 2001

Chart 28



Source: Compiled by the Community Accounts Unit based on custom tabulations from the Census of Population 2001, Statistics Canada.

www.communityaccounts.ca/CommunityAccounts/OnlineData/table_e11r.asp?comval=prov&menucomval=prov&agecohort=20plus

Percentage of Population Aged 20+ with Less Than Grade 9

by sex

Canada and Atlantic Provinces, 2001

Chart 29

We have used two indicators in education. One tells us the percentage of people who have completed a post-secondary education. The other tells us those that completed less than a grade nine education. Although literacy data would be a better indicator of low education levels, data is not available at the present time for each of the Atlantic Provinces. Data on literacy levels by province will be available in October of this year from the new International Adult Literacy Survey (IALS).

How educated are we?

The proportion of the population with bachelor's degrees is lower in the Atlantic Provinces *(Chart 28)*

All four Atlantic Provinces have percentages of the population ages 25-54 with a bachelor's degree lower than Canada. Newfoundland and Labrador has the lowest percentage of the adult population with a Bachelor's degree or higher at 12.8% compared to Canada at 20.9%. The rates of women with Bachelor's degrees or higher, are slightly higher than men in all four provinces.

A higher percentage of the population in Atlantic Canada has less than a grade 9 education *(Chart 29)*

In Nova Scotia, 9.5% of the adult population ages 20+ years have less than a grade 9 education. The rest of the Atlantic Provinces are higher than Canada. Newfoundland and Labrador has the

highest percentage of the adult population with less than a grade 9 education at 16.6%. Males in all four provinces are more likely to have less than a grade 9 education.

DEMOGRAPHY

Demography is an important indicator for all aspects of well-being. Often those with the best health status and education levels are our youth. By contrast, our youth are also those most unemployed, poor and in trouble with the law. A decrease in the number of youth in an area can have a variety of impacts including lower crime rates, reduced education levels, increased per capita spending on health care, and lower unemployment rates.

Is our population changing?

The population in Atlantic Canada is aging faster than Canada *(Chart 30)*

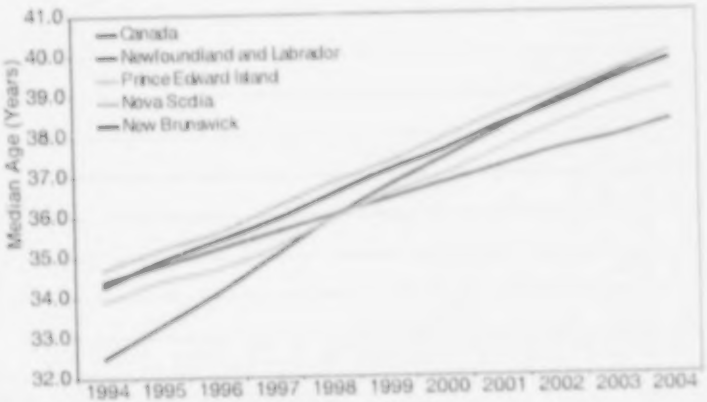
In 1994, the median age of all Canadians was similar to the median age of the Atlantic Provinces, with the greatest difference in Newfoundland and Labrador at 32.5 years. By 2004, the population of Canada was younger (38.3 years) than the population in each of the Atlantic Provinces.

The median age, however, increased between 1994 and 2004 in all four Atlantic Provinces and in Canada. The rate of increase was lower

Median Age

Canada and Atlantic Provinces, 1994-2004

Chart 30



Source: Statistics Canada, CANSIM Table 051-0001

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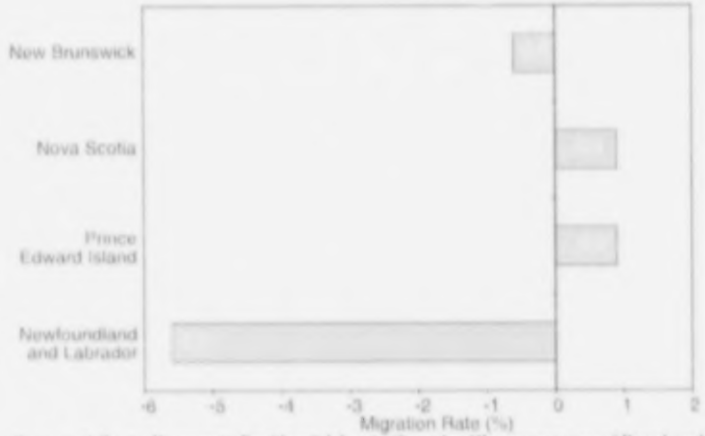
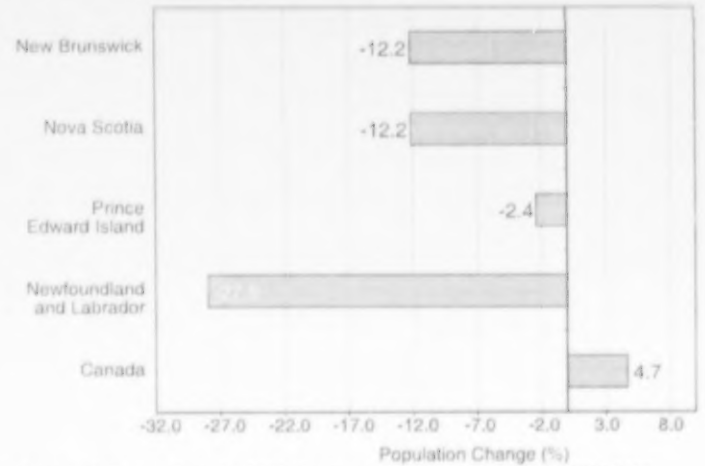


Source: A Socio-Economic Profile of Atlantic Canada: Characteristics of Rural and Urban Regions, with Implications for Public Policy, March 2005
www.umoncton.ca/ecrdr/Typo_fin_ang.pdf

Net Migration
percentage of 2001 population
Atlantic Provinces 1996-2001
Chart 31



Source: Statistics Canada, 2001 Census of Canada, table 97F0003XCB0100

Population Change
aged 15-24 years
Canada and Atlantic Provinces, 1991-2001
Chart 32

for Canada at 11.3% while the rate of increase was highest in Newfoundland and Labrador at 23.1%.

NL and NB have more people leaving than entering *(Chart 31)*

Newfoundland and Labrador and New Brunswick have more people leaving than entering the province. Newfoundland and Labrador's net migration rate between 1996 and 2001 was -5.6%. Although New Brunswick's net migration rate was higher than Newfoundland and Labrador at -0.6%, there were still more people leaving overall than entering. Nova Scotia and Prince Edward Island have more people entering than leaving but their net migration rate is less than 1%.

Youth in all Atlantic Provinces are decreasing *(Chart 32)*

Between 1991 and 2001, the population aged 15 to 24 years has decreased in all four Atlantic Provinces. The decrease of this age group has been more prominent in Newfoundland and Labrador with a 27.9% drop. Prince Edward Island had the smallest reduction while in both Nova Scotia and New Brunswick this age group decreased by 12.2%.

CONCLUSION

The economic indicators have been the usual way well-being has been measured. As expected, economic indicators, such as income and labour market, continue to lag behind Canada as a whole. We also continue to lag behind Canada in education levels. It is likely we would have seen improvement in our education levels if out-migration of educated youth were not as high.

The positive news is that social relationships of Atlantic Canadians are generally better than Canadians overall. Our overall quality of life that Atlantic Canadians value may be associated with these social relationships. Although strong social relationships in the Atlantic Provinces have been a long term trend, the data are showing us that there may be a negative shift in these. For instance, crime has been increasing in recent years.

Self-Assessed Health Status and Functional Health Status are also showing a decrease. Even though heart disease has decreased, diabetes and depression are increasing. Many factors are likely causing these increases including obesity and the rapid aging of the Atlantic Canada population, which was younger than Canada in 1994 and had become older by 2004. Caution, however, should be taken in interpreting the recent data as a trend as only a few years of data have been provided.

All the indicators described in this section of the report, as well as others, are available for each Atlantic Province and Canada on the Community Accounts (www.communityaccounts.ca).

6 A Beacon: The Atlantic Canada Community Accounts

Numbers count! From data to information to knowledge! In one sense as a people closely associated with the sea, we know the value of good data to navigate our way to safety. Unfortunately, access to good data has been difficult and even costly to acquire. The result is a loss of empowerment for the ordinary citizen and a fear of numbers by many of front line workers associated with clients and groups in need. We are often critical of the National Accounts data or unemployment numbers from Statistics Canada's Labour Force Survey. They are very important numbers to guide macro-economic policy formulation in this country but the numbers are being misused out of context and in a partial framework. They do not describe the socio-economic landscape of Atlantic Canada and they do not help us understand health and wellness or crime and safety. This paper has suggested a new and we would argue, much more holistic framework.

From the perspective of this framework, how are Atlantic Canadians doing? Are we a "have" region? Based on the evidence that we investigated in Section 5 of this paper, the evidence is either mixed or there is no evidence at all? The two themes of this session were health and wellness and crime and safety. With respect to health and wellness, sometimes the domain indicators are above the Canadian average for some of the Atlantic Provinces but sometimes they are below. Even within a province the results with respect to the Canadian average can be different for men and women. As for longer term trends, say longer than 10 years, the time series are often highly non-linear in the medium term or non-existent in the longer

Health and Wellness & Crime and Safety

term. On a positive note, we are living longer. We also drink more, perhaps because we have more friends as indicated by the level of social support. It seems that we believe we are better off than we think and how others view us. As for crime and safety, the picture is somewhat clearer, although it too is mixed and varies by province. The incidence of property crime is less in Atlantic Canada. PEI seems to stick out as experiencing increases in crime rates and Nova Scotia's increased incidence in violent crimes also stands out.

As a general conclusion, the data seem to cry out for more analysis. We need to drill down further in terms of communities and neighbourhoods and also in terms of what is happening in groups. We have to understand how demographic balances are changing. We also have to drill out not only in terms of indicators for the domain boxes. However, setting the priorities in terms of indicator collection will often depend on the stories of front line service providers, community groups and ordinary citizens. But sorting out the facts as opposed to the theories and getting down to root causes in, for example, a determinants-of-crime model, will require longitudinal and community/neighbourhood level data. The danger is that political imperatives will demand action before we really understand what is going on. In this part of the world our experience is that, not only is the problem not fixed but other ones, far more socially serious may be created. Even the casual empiricism exercise we engaged in Section 5 is simply that, "engaging" but statistical analysis has long taught us that differences as we see them, may be just due to random occurrences or small samples. Look how the PEI data dances around.

And what about well-being? Data on the quality of life is collected for Newfoundland and Labrador and data does exist at the international level[17] but it does not exist for the other provinces and no where does it exist at the community or neighbourhood level. John Helliwell, from The University of British Columbia, has spoken[18] at a number of conferences here in the Atlantic region on well-being and its associated determinants. Helliwell states that the most important determinant of our well-being or the quality of our lives is our social capital, that is, our relationships with others. If social support is an indicator of this then we are doing pretty well in Atlantic Canada.

In this paper, a framework for examining the quality of our lives and our communities has been provided. This conceptual framework is imbedded in the accounting structure of the System of Community Accounts. This system of Accounts is constantly evolving. The launch of the Atlantic Canada Community Accounts for the four provinces, premised on the well-being framework outlined in this paper, is just another stage of the evolution. Governments and community can play a critical role in this process as they increasingly adopt evidence-based approaches within more holistic frameworks that encompass and support many of the well-being domains. Ideally, the work and data that are produced from these efforts will be used to strengthen and develop the Community Accounts framework. For example, work is being carried out in our province on labour market information by the Department of Human Resources, Labour and Employment can be used to strengthen and expand the Work and Working Conditions domain. Similarly, the work and data of the National Crime Prevention Strategy effort can be used to strengthen and develop the Quality and Security domain. However, in order to move the framework and the Accounts forward partnerships are required.

We have learned a lot. In this paper, we learned that while the economy is an important part of our lives, it is not everything. Our region and our people should not be labelled by it. Further investigation shows that even from this economic perspective,

[17] *Go to www.nationmaster.com/top_stats.php.*

[18] *See also his book Globalization and Well-Being, Vancouver: UBC Press, 2003.*

current macro-indicators are misleading. We have also learned that a great deal needs to be done in terms of providing information on what should be measured and how to measure it. However, the journey is just beginning. Hopefully, this session will be the catalyst to promote discussion, to form partnerships and to move us forward so that by using data we may better know ourselves. And in doing so we can work towards improving the quality of our lives, our collective well-being as in the end that is what it is all about.

Health and Wellness & Crime and Safety

Appendix A: Well-Being Indicators for the Four Atlantic Provinces and Canada

High Self-Esteem

Self-Assessed Health Status

Health-Adjusted Life Expectancy

Life Expectancy

Functional Health Status

Percentage of Population With Diabetes

Ischaemic Heart Disease Deaths

Percentage of Population with Probability of Depression

Frequency of Drinking

Suicide, Age Standardized Rate per 100,000 Population

Criminal Code Offences

Incidence of Property Crimes

Incidence of Violent Crimes

Percentage of Friends of Child Frequently in Trouble

Pro-social Behaviour

Percentage of Parents with Children Aged 2-11 Showing a Rational Parenting Style

Percentage of Children Living in Lone-Parent Families

High Social Support

Percentage of Individuals Who are Involved in at Least One Organization

Real Disposable Income (1992 $)

Measures of Income Inequality: Gini Coefficient (After-Tax Income) for Economic Families

Incidence of Low Income

Depth of Low Income

Homes Owned Versus Rented

Home Ownership: With and Without Mortgage

Average Hours Worked per Year Relative to Canada

Worker to Population Ratio

Percentage of Population Aged 15-24 Not Working or Attending School

Percentage of Population Aged 25-54 with Bachelor's Degree or Higher

Percentage of Population aged 20+ with Less Than Grade 9

Median Age

Net Migration

Population Change